Katten Muchin Rosenman LLP

575 Madison Avenue
New York, NY 10022-2585
212.940.8800 tel
212.940.8776 fax

Facsimile

To	Company	Fax Number	Phone Number
Examiner Y. Young Lee	USPTO – GAU 2613 Confirmation No.: 1907	1-571-273-8300	

Date	Client/Matter Number
February 7, 2006	100794-11371 (FUJH 16.870)

From	Attorney Email Address
Dexter T. Chang	dexter.chang@kattenlaw.com

Phone	Fax
212.940.6384	212.940-8986

Total number of pages, including cover letter: 7
If you do not receive all of the pages, please call: (212) 940-8755

Comments

** EXPEDITED PROCEDURE**

Enclosed:

6 pages – RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

For Messenger Department Use Only

Your fax has been sent. Attached is your original.

Date   Time

Signature

Important

NYC01_84107720_1_100593_00176 2/7/2006 2:01 PM

RECEIVED
CENTRAL FAX CENTER
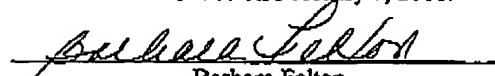
FEB 0 7 2006

Certification Of Facsimile Transmission
I hereby certify that this paper is being facsimile
transmitted to (571) 273-8300 at the U.S. Patent
and Trademark Office on February 7, 2006.

Barbara Felton
Barbara Felton

Attorney Docket No.: 100794-11371 (FUJH 16,870)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant(s)	:	Akihiro YAMORI
		Takashi HAMANO
		Kiyoshi SAKAI
		Kouji YAMADA
Serial No.	:	09/526,619
Filed	:	March 16, 2000
For	:	*Moving Pictures Encoding Method and Apparatus*
Examiner	:	Y. Young Lee
Group Art Unit	:	2613

February 7, 2006

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Board of Patent Appeals and Interferences
Assistant Commissioner for Patents
Washington, D.C., 20231

Sir:

In response to the Notification of Non-Compliant Appeal Brief dated January 25, 2006

and pursuant to M.P.E.P. § 1205.03, Appellants hereby submit a replacement section (v)

("Summary of claimed subject matter") for the Brief for Appellants filed on December 12, 2005

in the above-referenced appeal. Appellants submit the replacement section (v) to include a

concise explanation of the subject matter defined in each of the independent claims (23 and 26)

84110285_1

involved in the appeal. Appellants, in the replacement section (v), refer to the drawings and specification to identify each element recited in the independent claims and to explain the advantages of the claimed invention. Appellants respectfully request that the section (v) Summary of claimed subject matter in the December 12, 2005 Brief be replaced with the replacement section (v) hereby submitted. Appellants further submit that the Brief is, thus, in compliance with 37 CFR § 41.37(c)(1)(v).

(v)   <u>Summary of claimed subject matter</u>

The claimed invention is directed to a technique for improved moving picture image data encoding, where a bidirectional picture is encoded by predicting a top field from only forward picture frames and a bottom field from only backward picture frames. This scheme reduces the amount of encoding needed while addressing the problem of quality deterioration at scene changes between bidirectional pictures.

Appellants present the following figure to illustrate the operations of conventional moving picture image data encoding, as discussed on pages 7-9 in the specification—referring to Fig. 31 of the application:
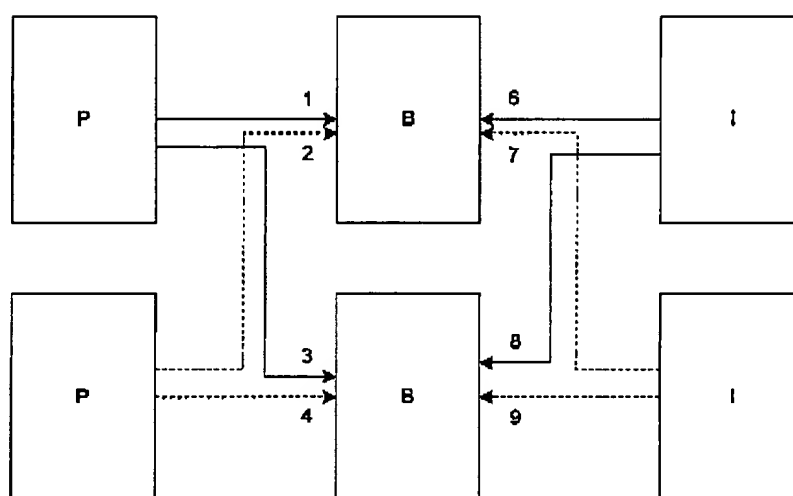
PRIOR ART

As shown above, specifically in the case of bidirectional prediction methods of the prior art, the odd field generates a reference frame by combining a forward predictive frame, which is generated using either number 1 or 2 motion vector, <u>and</u> a backward predictive frame, which is generated using either the number 6 or 7 motion vector. Likewise, the even field generates a reference frame by combining a forward predictive frame, generated using either the number 3 or

84110285_1

4 motion vector, and a backward predictive frame, which is generated using either the number 8 or 9 motion vector. Please see, for example, page 9, lines 3-14 of the specification. Since both fields of a picture B include predictive pictures combined with the forward and backward picture frames, a predictive picture may be deteriorated if a scene change occurs between the B's of a current frame.

The claimed invention solves this problem by having the feature of performing the prediction in a macro-block unit composed of (n x n) pixels, to the top field of the picture frame from either one of top and bottom fields of the forward picture frame, and the bottom field of the picture frame from either one of top and bottom fields of the backward picture frame, as shown in the figure below.
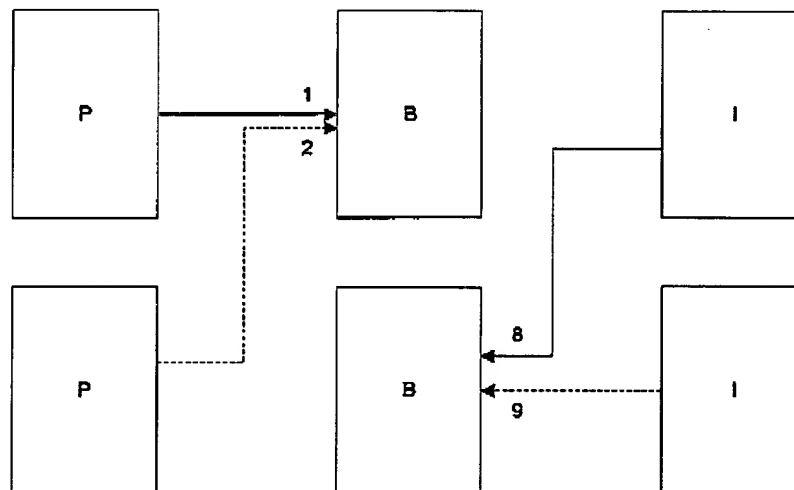
PRESENT INVENTION

As an example of the claimed technique, please see Fig. 1 and its corresponding description on page 18, line 18 to page 19, line 11 in the specification of the application. The above figure is an alternate illustration of Fig. 1 of the application. As shown above and in Fig.

84110285_1

1, prediction is possible when the odd field uses only either the number 1 or 2 motion vector AND when the even field uses only either the number 8 or 9 motion vector.

Therefore, in one embodiment, the present invention's method comprises the steps of "first predicting in a macro-block unit composed of (n x n) pixels, the top field of the picture frame from either one of top and bottom fields of only the forward picture frame [page 19, lines 5-6 of the specification, 'when the odd field uses either the 1 or 2 motion vector'], and the bottom field of the picture frame from either one of top and bottom fields of only the backward picture frame [page 19, lines 6-7 of the specification, 'and when the even field uses either the 8 or 9 motion vector']; generating a predictive picture according to the prediction; and encoding the picture frame of the input signal by using the generated predictive picture [Fig. 5, 'the prediction result of the motion prediction decision device 6 is outputted by the difference circuit 7, and inputted to the encoder 2,' page 26, lines 9-11 of the specification]," as recited in rejected independent claim 23. (Underlining added for emphasis)

Rejected claims 24 and 25 depend from claim 23, and are patentable over the references cited against them for at least the same reasons, as discussed in section (vii).
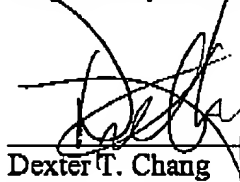
The present invention is also directed to a moving picture encoding apparatus operable to perform the above-described moving picture image data encoding. For example, with reference to Fig. 9 and its corresponding description on page 26, line 17 to page 29, line 5 of the specification, such an apparatus may comprise "field motion vector detecting means [motion prediction decision device 6 shown in Fig. 9] for performing first predicting in a macro-block unit composed of (n x n) pixels, the top field of the picture frame from either one of top and bottom fields of only the forward picture frame, and the bottom field of the picture frame from either one of top and bottom fields of only the backward picture frame [prediction comparator

84110285_1

PAGE 6/7 * RCVD AT 2/7/2006 2:03:18 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/25 * DNIS:2738300 * CSID:+2129408986 * DURATION (mm-ss):02-00

64, as illustrated in Fig. 9, 'adds a predictive mode, which, in B-picture field prediction,

performs prediction from the forward direction for one field, and prediction from the backward

direction for the other field,' page 27, lines 10-13 of the specification]; motion compensating

means for generating a predictive picture according to the prediction; and encoding means for

encoding the picture frame of an input signal using the generated predictive picture [Fig. 5, 'the

prediction result of the motion prediction decision device 6 is outputted by the difference circuit

7, and inputted to the encoder 2,' page 26, lines 9-11 of the specification]," as recited in rejected

independent claim 26. (Underlining added for emphasis)

Rejected claims 27 and 28 depend from claim 26, and are patentable over the references

cited against them for at least the same reasons, as discussed in section (vii).

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,

Dexter T. Chang
Reg. No. 44,071

CUSTOMER NO.: 026304
Telephone No.: (212) 940-6384
Fax No.: (212) 940-8986/87
Docket No.: 100794-11371 (FUJH 16.870)
DTC:bf

84110285_1

PAGE 7/7 * RCVD AT 2/7/2006 2:03:18 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/25 * DNIS:2738300 * CSID:+2129408986 * DURATION (mm-ss):02-00